Randell Manufacturing, Inc.

OWNERS MANUAL

This manual provides information on installation, operating, maintenance, troubleshooting & replacement parts for

PRODUCTION FREEZERS

NOTIFY CARRIER OF DAMAGE AT ONCE.

It is the responsibility of the consignee to inspect the container upon receipt of same and to determine the possibility of any damage, including concealed damage. Randell suggests that if you are suspicious of damage to make a notation on the delivery receipt. It will be the responsibility of the consignee to file a claim with the carrier. We recommend that you do so at once.

Randell
A DOVER INDUSTRIES COMPANY

520 S. Coldwater Road Weidman, MI 48893-9683
Phone 1-800-621-8560 Fax 1-800-634-5369 www.randell.com

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Congratulations on your recent purchase of Randell food service equipment, and welcome to the growing family of satisfied Randell customers.

Our reputation for superior products is the result of consistent quality craftsmanship. From the earliest stages of product design, to successive steps in fabrication and assembly, rigid standards of excellence are maintained by our staff of designers, engineers, and skilled employees.

Only the finest heavy-duty materials and parts are used in the production of Randell brand equipment. This means that each unit, given the proper maintenance, will provide years of trouble free service to its owner.

In addition, all Randell food service equipment is backed by one of the best warranties in the food service industry and by our professional staff of service technicians.

Retain this manual for future reference

Notice: Due to a continuous program of product improvement, Randell Manufacturing reserves the right to make changes in design and specifications without prior notice.

Notice: Please read the entire manual carefully before installation. If certain recommended procedures are not followed, warranty claims will be denied.

Model Number _____

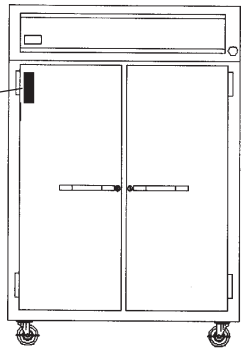
Serial Number _____

Installation Date _____

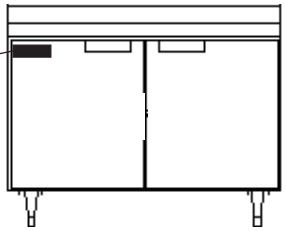
Randell Manufacturing
Service and Parts
Hot line
1-800-621-8560

Randell Manufacturing
Serial Number Locations
1995 to Present

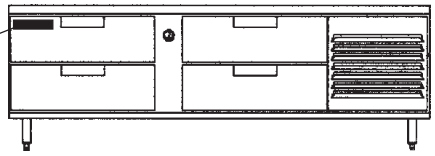
SERIES 2000 (Reach-Ins)
Serial number is located on the upper left hand interior wall.



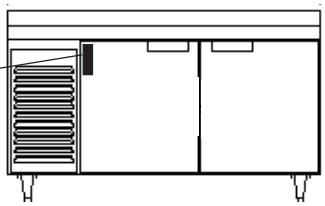
9300, 9400, 9800 Series
(Back-mount compressors)
Serial number is located on the upper left hand interior wall.

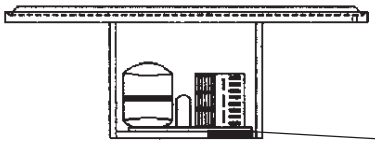


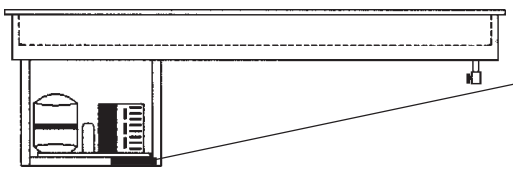
20000 Series (Low Profile Cooking Equipment Stands)
Serial number is located on the upper left hand interior wall.

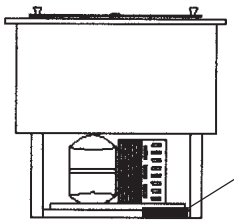


9200 Series
(Side-mount compressors)
Serial number is located on the upper left hand interior wall.









9800A Series Drop-In Frost Tops.
9700A Series Drop-In Cold Pans.
Models 9550A, 9552A Drop-In Freezers
Serial number is located on the base of the compressor housing.

Section I - Randell Manufacturing Limited Warranty

LABOR

Randell manufacturing warrants all repair labor charges on their equipment for the first 90 days. During the first 90 days work authorizations are not required for in warranty repairs. However, repair times are limited to certain flex rate schedules and hours will be deducted from service invoice if they extend past allotted times without prior approval and a work authorization number. Warranties are effective from date of shipment, with a 30 day window to allow for shipment, installation and set-up.

Where equipment is shipped to any site other than final installation Randell will honor the labor warranty for a period of 90 days following installation with proof of starting date, up to a maximum of 9 months from date of purchase. **Temperature adjustments are not covered under warranty,** due to the wide range of ambient conditions, Randell assumes no liability for temperature adjustments. Travel time is limited to 1 hour each direction or 2 hours per invoice. Any travel time exceeding 2 hours will be the responsibility of the customer.

PARTS

Randell Manufacturing warrants all component parts of new equipment to be free of defects in material or “workmanship and that the equipment meets or exceeds reasonable industry standards of performance for a period of one year from the date of shipment from Randell.

Warranties are effective from date of shipment, with a 30 day window to allow for shipment, installation and set-up.

Where equipment is shipped to any site other than final installation Randell will honor component parts warranty for a period of 12 months following installation with proof of starting date, up to a maximum of 18 months from date of purchase.

Randell Manufacturing covers all shipping cost related to component part warranty sent at regular rates within the continental United States (UPS, USPS). Cost incurred for red label or any other specially arranged methods of shipping are the responsibility of the customer.

EXTENSIONS

When the extended 1 year labor warranty is purchased, Randell agrees to pay regular shop rates within regional hourly average for all warranted repairs occurring during the first year of operation.

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Warranties are effective from the date of shipment, with a 30 day window to allow for installation and set-up. Where equipment is shipped to any site other than final installation Randell will honor extended labor warranty for a period of 12 months following installation with proof of start date, up to a maximum of 18 months from date of purchase.

When the optional 5 year extended compressor warranty is purchased, Randell will pay for the replacement compressor only. During years 2-5 freight, labor, refrigerant, handling and all other charges are the responsibility of the customer. Randell will fulfill its warranty obligations by using one of the 4 methods provided below:

1. Provide reimbursement to service company for the cost of locally obtained replacement compressor in exchange for the return of the defective compressor (sent freight prepaid). Randell reserves the right to limit the amount of reimbursement allowed on replacement compressors (customer should not pay service agent up front for compressor).

2. Provide repair at Randell by requiring that the defective unit be sent back freight prepaid. Perform repair at the expense of Randell and ship the unit back to the person sending it freight collect.

3. Furnish a replacement compressor freight collect in exchange for the return of the defective compressor sent back freight prepaid.

4. Furnish complete condensing unit or a replacement package freight collect in exchange for the return of the defective compressor sent back freight prepaid. The decision on whether or not to send complete condensing units will be made by Randell's service technician.

Randell Manufacturing does not cover glass breakage on any unit produced once it has been delivered in satisfactory condition. Also any glass breakage that occurs during shipping needs to have a freight claim filed by the receiver with the shipping carrier. Internal or concealed damage may fall under Randell's responsibilities depending on the circumstances surrounding each specific incident and are at the discretion of the Randell service technician.

Randell Manufacturing does not cover gaskets under warranty. Gaskets are a maintenance type part that are subject to daily wear and tear and are the responsibility of the owner of the equipment. Because of the unlimited number of customer related circumstances that can cause gasket failure, all gasket replacements are Considered non-warranty.

NOTICE: FOOD LOSS IS NOT COVERED UNDER WARRANTY

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Our export warranties will cover all non-electrical parts for a period of one year from the date of shipment to be free of defects on material or workmanship. Electrical parts are also covered if ordered and operated on 60 hertz. Electrical components, ordered and operated on 50 hertz, are warranted for the first 90 days from shipment only. Service labor is covered for first 90 days with authorization from factory prior to service. Warranty is automatically initiated 60 days from ship date. Inbound costs on any factory supplied items would be the responsibility of the customer. Adherence to recommended equipment maintenance procedures, according to the owner's manual provided with each unit, is required for this warranty to remain in effect, and can have a substantial effect on extending the service life of your equipment. Equipment abuse voids any warranty. Extended warranties are not available for parts, labor or compressor on units shipped outside the United States.

Section II - Installation

A. Receiving shipment

Upon arrival, examine the exterior of the shipping crate for signs of abuse. It is advisable that the shipping crate be partially removed, in order to examine the cabinet for any possible concealed damages which might have occurred during shipment. If no damages are evident, replace the crate in order to protect the unit during local delivery. If the unit is damaged, it should be noted on the delivery slip or bill of lading and signed to that effect. A claim must be filed immediately against the carrier indicating extent and estimated cost of damage incurred.

B. Locating your new freezer

The following conditions should be considered when selecting a location for your freezer:

1. Floor load - The floor on which the freezer will rest must be free of vibration and suitably strong enough to support the combined weights of the unit plus the maximum product load weight, it is generally acknowledged that a safe figure is 35 lbs. for each net cubic foot of storage space (example, a 47 cubic foot cabinet could hold approximately 1645 lbs. of product 47 X 35 = 1645).

2. Clearance - There must be at least 3" of clearance on all sides of the unit.

Note: 2000 series Reach-in units require 6" of clearance above condensing units.

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3. Ventilation - The air cooled self-contained freezer requires a sufficient amount of cool clean air. Avoid placing the freezer near heat generating equipment such as ovens ranges heaters, fryers, steam kettles, etc. and out of direct sunlight. Avoid locating the self-contained freezer in an unheated roam or where the room temperature may drop below 55 degrees F. or above 90 degrees F.

C. Electrical Supply The wiring should be done by a qualified electrician in accordance with local electrical codes. A properly wired, and grounded outlet will assure proper operation. Please consult the data plate attached to the compressor to ascertain the correct electrical requirements. Supply voltage requirements are on the unit serial tag.

Note: It is important that a voltage reading be made at the compressor motor electrical connections, while the freezer is in operation, to verify that the correct voltage required by the compressor is being supplied. Low or high voltage can detrimentally affect the refrigeration unit and thereby void its warranty.

Note: It is important that your unit have its own dedicated line. Condensing units are designed to operate with a voltage fluctuation of plus or minus 10% of the voltage indicated on the unit data plate. Burn-out of a condensing unit due to exceeding voltage limits will void the warranty.

D. Door and Drawer inspection Check door and drawers to insure that they are sealing properly and that they are aligned (See dia. D. page 11).
Note: For units supplied with self-closing doors (See dia. C. page 11).

E. Installation checklist After the cabinet has been installed refer to the following checklist prior to start-up:

1. Check all exposed refrigeration lines to ensure refrigeration lines are not dented, kinked or rubbing.
2. Check condenser and evaporator fans for freedom to rotate freely without striking any stationary members.
3. Cabinet must be properly leveled (see diagram A. page 10).
4. Refer to the front of this manual for serial number location. Please record this information in your manual now. It will be necessary when ordering replace ment parts or requesting warranty service.
5. Set cold controls to desired temperature for your individual application (see diagram B. page 10).

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6. Drop in units must have 405 square inches of cross flow ventilation per side. Equal to or greater than the louvers provided with each unit at the time of purchase.
7. Check defrost setting for both number of defrost settings and time of defrost activation.

Note: All motors are oiled and sealed.

Note: All self-contained models are shipped from the factory with the service valves opened ready for operation.

Note: All non-programmable timers are scheduled for 6 defrost cycles (15 minute durations) in a 24 hour period with activation times at the users discretion.

Section III - Operation

Allow your freezer to operate for approximately 2 hours before putting in food. This allows the interior to cool down to the correct storage temperature. Randell has attempted to preset the cold control for an average interior temperature of 10 degrees at the factory but due to varying ambient conditions including elevation, food product as well as type of operation may alter this temperature. Additional adjustments can be made (within limits) by turning the control dial up or down until the desired temperature is reached. The temperature control dial is located either on the evaporator housing or inside the compressor housing (see dia. B. page 10).

During normal operation, a freezer continuously circulates below freezing cabinet air through the coil. Defrosting the coil requires a periodic supply of heat. This is accomplished by an automatic, time activated, temperature terminated, electric defrost system. The programmable time clock is preset at the factory for four defrost cycles every 24 hours and the non-programmable type 6 cycles every 24 hours. However, this may be easily changed to suit climatic conditions and usage, by adding or subtracting the number of cycles. To set up defrost cycles: open time clock cover and read the instructions on the back of the cover, set defrost cycles as desired (see dia. E. page 11).

Adjustments to the defrost timer are not covered under warranty.

At the start of the defrost cycle, both the compressor and evaporator fans are off. The electric defrost heater (attached to coil) and drain pan heater (attached to drain pan below coil) are energized .

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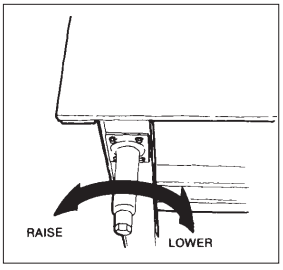
When the defrost termination senses 58 degrees, the coil is fully defrosted and the compressor operation is automatically resumed; defrost and drain pan heaters are automatically de-energized and the compressor is activated. The coil fans are delayed from starting at the termination of a defrost cycle. When the thermostat senses a coil temperature of 35 degrees, drain line heater and fan operation is automatically resumed. The freezer operation is now completely resumed.

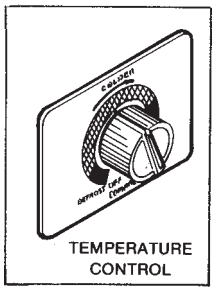
During the defrost operation, heat is confined to the coil housing to prevent any significant rise in air temperature in the food zone, the fan delay action of the termination thermostat is twofold. First to prevent blowing of warm air into the food storage area. Second, to prevent any condensate retained on the defrosted coil, from being blown into the food storage area.

Normal defrosting which is terminated by the temperature sensors will average 10 to 15 minutes. A fail safe provision to the defrost cycle with resulting damage to food storage is provided by an override timer in the defrost clock. Setting the maximum duration of the override timer at 25 minutes provides a fail safe system in the event that the defrost terminator malfunctions.

Diagram A - Leveling of unit

The legs are equipped with bullet-type leveling bolts. Turn bolts clockwise or counterclockwise until the unit is level (both right to left and front to back). This can be done by hand or with an open end wrench.





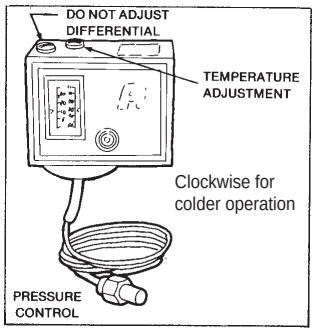


Diagram B - Temperature control adjustments

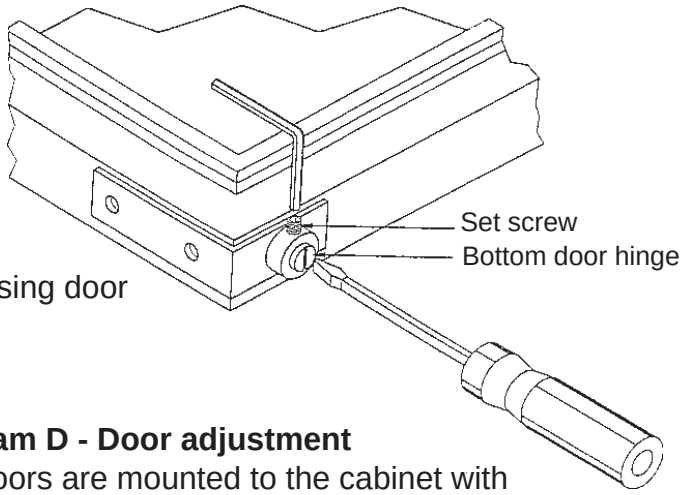
A control knob inside the cabinet- allows for adjustments. Turning the knob clockwise will result in increased cooling. Keep the arrow on the knob pointed within the green arc. Turning it clockwise beyond the green can result in freeze-up, while turning it counterclockwise beyond the green will shut the compressor off.

For units equipped with a pressure control, adjust temperature by turning adjustment screw clockwise to a lower number for colder temperature. Turn adjustment screw counterclockwise to a higher number for warmer temperature.

NOTE: NUMBERS ARE POUNDS OF PRESSURE NOT DEGREES.

Diagram C - Resetting self-closing hinge

Loosen set screw, using a flat blade screw-driver turn bottom hinge (2) turns.
Turn clockwise on left hinged doors, counterclockwise on right hand doors.
Hold hinge in wound position with screwdriver and tighten set screw.



Bottom view of self-closing door

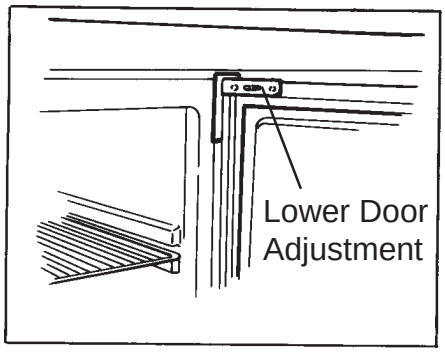


Diagram D - Door adjustment

The doors are mounted to the cabinet with two screws on the upper hinge, and a hinge pin on the bottom To adjust the door first open it 90 degrees and remove the two screws leaving the center adjusting screw loose enough to reposition door. Once repositioned, install all screws and tighten.

Diagram E - Defrosting Freezers

Manual defrost - to turn freezer into manual defrost, with the style timer shown in figure “A”, turn center shaft 90 degrees, with a flat tip screwdriver, clockwise until a click is heard. If your unit is equipped with a timer as illustrated in figure “B” turn the reset knob until a pin in the timer dial passes the reset knob.

Automatic defrost - Each Randell freezer equipped with an automatic defrost timer, shuts the compressor for a specified number of times each day. When the unit is on defrost time, water will drain from the evaporator through a tube into the condensate evaporator pan at the bottom or to a designated floor drain. The de-frost timer cycle may be altered to a different number of cycles if your unit is equipped with a timer as shown in figure “B”.

Note: Both timers allow customer chosen defrost times.

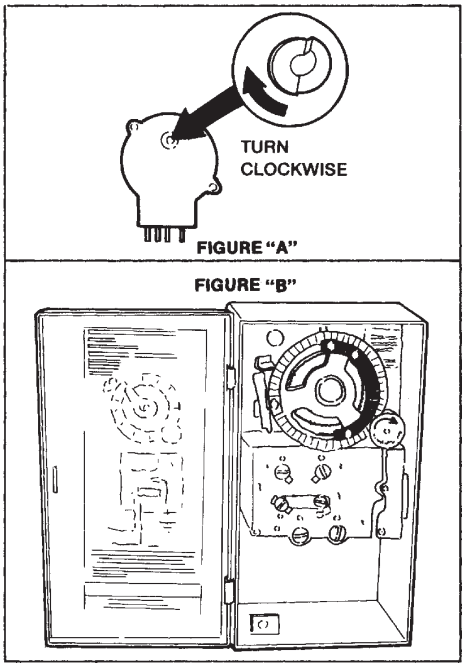
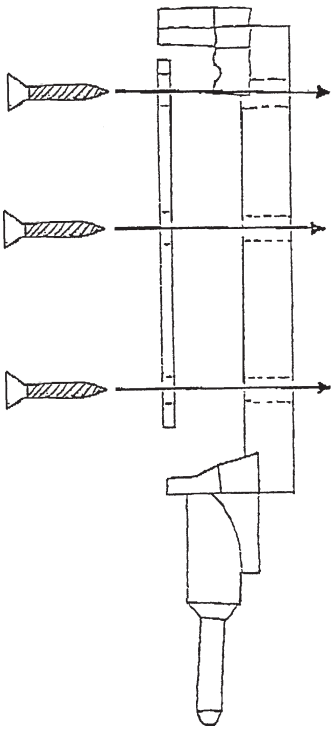


Diagram F - Doors with cam lift closures



To adjust or align cam lift doors, remove hinge cover and loosen the three machine screws on door portion of hinge plate, then pull hinge side of door in or out as necessary to align door with cabinet front for proper gasket sealing (To make door tighter move adjustment plate inward, to loosen move adjustment plate out). Tighten hinges, replace hinge cover and re-install door.

To align top or bottom corners of doors for level, loosen screws on cabinet portion of hinge and align corners and secure screws

Section IV - Preventative Maintenance

Randell strongly suggests a preventive maintenance program which would include the following **MONTHLY** procedures:

1. Cleaning of all condenser coils. Condenser coils are a critical component in the life of the compressor and must remain clean to assure proper air flow and heat transfer. Failure to maintain this heat transfer will affect unit performance and eventually destroy the compressor. Clean the condenser coils with coil cleaner (available at your local appliance parts center) and/or a vacuum cleaner and brush.

   Note: Brush coil in direction of fins, normally vertically

2. Clean all fan blades, both on the condensing unit and evaporator assembly.

3. Lubricate fan motor shafts, door hinges and drawer bearings. Lubricate fan motor shafts with 3 in 1 oil and drawer bearings with white lithium grease.

4. Clean and disinfect drain lines and evaporator pan with a solution of warm water and bleach.

5. Clean all gaskets on a weekly if not daily basis with a solution of warm water and a mild detergent to extend gasket life.

   NOTE: DO NOT USE SHARP UTENSILS

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Recommended cleaners for specific situations

JOB	CLEANING AGENT	COMMENTS
Routine cleaning	Soap, ammonia, detergent Medallion	Apply with a cloth or sponge
Fingerprints and smears	Arcal 20, Lac-O-Nu, Ecoshine	Provides a barrier film
Stubborn stains and discoloration	Cameo, Talc, Zud, First Impression	Rub in the direction of the polish lines.
Grease and fatty acids, blood, burnt-on foods	Easy-off, De-grease It, Oven Aid	Excellent removal on all finishes
Grease and oil	Any good commercial detergent	Apply with a sponge or cloth
Restoration/Passivation	Benefit, Super Sheen	

Reference: Nickel Development Institute, DiverseyLeve, Savin, Ecolab, NAFEM

Do not use steel pads, wire brushes, scrapers or chloride cleaners to clean your stainless steel.

CAUTION: DO NOT USE ABRASIVE CLEANING SOLVENTS, NEVER USE HYDROCHLORIC ACID (MURIATIC ACID) ON STAINLESS STEEL.

Proper maintenance of equipment is the ultimate necessity in preventing costly repairs. By evaluating each unit on a regular schedule you can often catch and repair minor problems before they completely disable the unit and become burdensome on your entire operation.

For more information on preventive maintenance consult your local service company. Most repair companies offer this service at very reasonable rates to allow you the time you need to run your business along with the peace of mind that all your equipment will last throughout its expected life.

These services often offer guarantees as well as the flexibility in scheduling of maintenance for your convenience.

Randell believes strongly in the products it manufactures and backs those products with one of the best warranties in the industry. We believe with the proper maintenance and use you will realize a profitable return on your investment and years of satisfied service.

Section V Troubleshooting

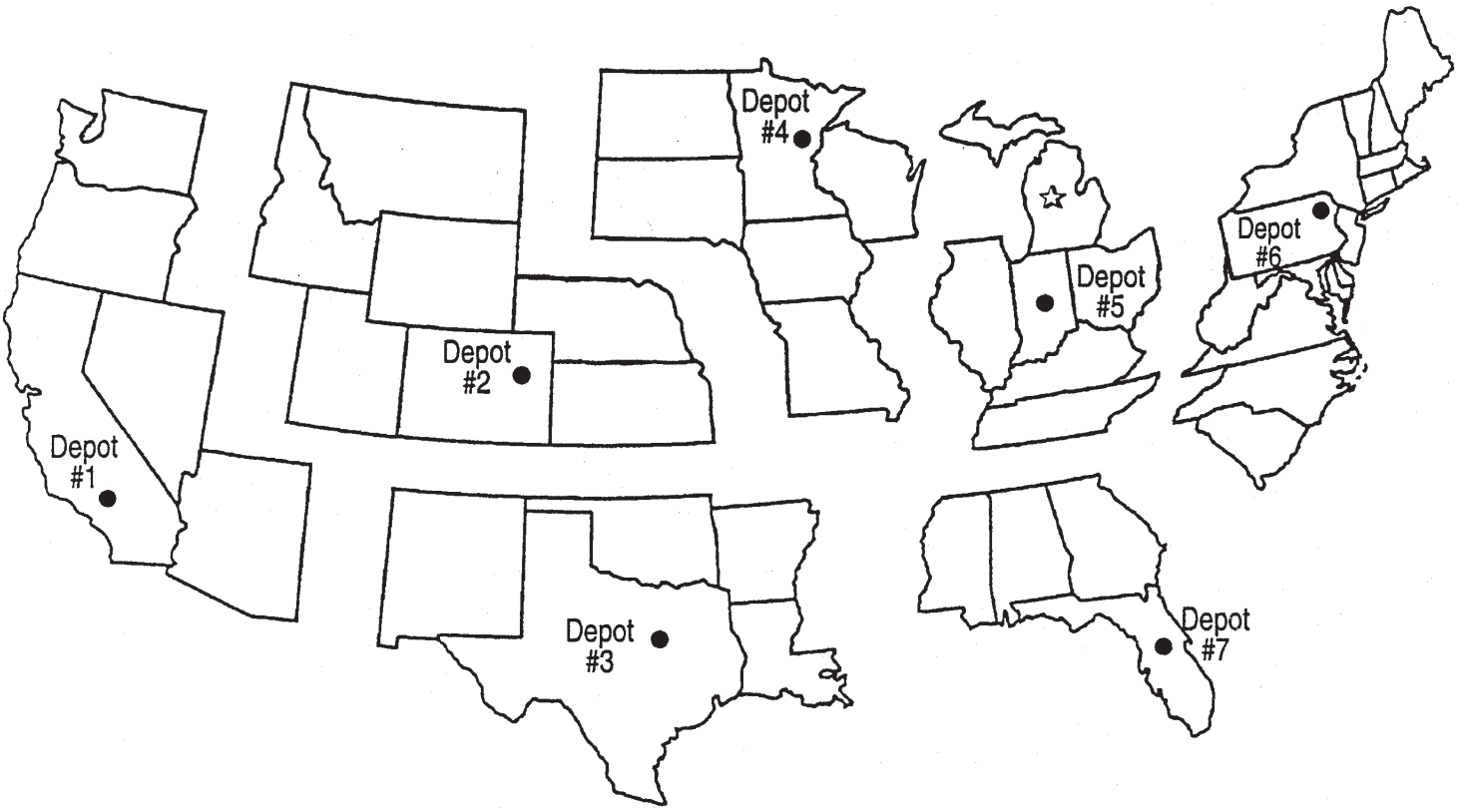
PROBLEM	POSSIBLE CAUSE	REMEDY
A. Freezer not running	1. Circuit breaker tripped 2. Power cord unplugged 3. Thermostat turned off 4. Unknown	1. Reset 2. Plug in 3. Turn on 4. Call service agency
B. Condensing unit operates for long periods or runs continuously	1. Excessive heat load placed into unit 2. Prolonged or too frequent door openings or door ajar. 3. Gasket not sealing 4. Dirty condenser coil 5. Evaporator coil frozen 6. Unknown	1. Allow unit sufficient time to remove heat. 2. Make sure door is closed when not in use. Correct the condition of too frequent door openings. 3. Check gasket condition. Adjust door or replace gasket. 4. Clean coil 5. Unplug unit, defrost coil then adjust cold control to warmer position 6. Call service agency
C. Unit is noisy	1. Check for loose compressor mounts 2. Check fan motor mounts 3. Check fan blades for obstructions 4. Check all panels, louvers and covers 5. Unknown	1. Tighten if necessary 2. Tighten if necessary 3. Remove any obstructions. Tighten or adjust shrouds. 4. Tighten and isolate as needed 5. Call service agency

Troubleshooting continued on page 15

PROBLEM	POSSIBLE CAUSE	REMEDY
D. Temperature too high	1. Check power cord and circuit breaker 2. Temperature control set too high 3. Dirty condenser coil 4. Evaporator coil froze 5. Unknown	1. Plug in cord or reset breaker 2. Adjust control 3. Clean coil 4. Unplug unit, defrost coil then adjust cold control to warmer position 5. Call service agency
E. Compressor runs but unit not cooling	1. Fan blades have encountered an obstruction 2. Unknown	1. Check for obstruction and free fan blade 2. Call service agency
F. Door will not close	1. Check opening for obvious obstruction 2. Check self closing mechanism 3. Check for loose or worn hinges	1. Remove any obstruction 2. Adjust or replace self closing mechanism 3. Replace hinges
G. Unit leaks water	1. Check for blockage in drain 2. Check defrost system	1. Clean evaporator pan and clear drain 2. Call service agent
H. Ice build up	1. Check defrost system 2. Unknown	1. De-ice coil 2. Call service agent

Randell Manufacturing., Inc.

Authorized Parts Distributors



DEPOT #1
CASE PARTS CO.
877 Monterey Pass Road
Monterey Park, CA 91754 1-800-621-7884
(CA ONLY) 1-800-421-0271

DEPOT #2
REFRIGERATION HARDWARE SUPPLY
632 Foresight Circle
Grand Junction, CO 81505 1-800-423-2446
1-800-537-8300 (PAC. COAST)

DEPOT #3
STOVE PARTS SUPPLY
2120 Solona St.
Ft. Worth, TX 76117-0009
1-800-433-1804

DEPOT #4
GENERAL PARTS
11311 Hampshire Ave.
South Bloomington, MN 55438
1-800-279-9980

DEPOT #5
COMMERCIAL PARTS
5310 E. 25th Street P.O. Box 18688
Indianapolis, IN 46218-0688
1-800-727-8710

DEPOT #6
HARRISON SUPPLY
Ridley Creek Plaza 5153 West Chester Pike
P.O. Box 596
Edgemont, PA 19028
1-800-521 -8444

DEPOT #7
WHITESIDE PARTS
722 Brookhaven
Orlando, FL 32803
1-800-322-2678

☆
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